BERGQUIST HI FLOW THF 3000UT
Known as BERGQUIST HI-FLOW 565UT
November 2018

PRODUCT DESCRIPTION
Tacky, High Performance, Un-Reinforced Phase Change TIM.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Silicone</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Blue</td>
</tr>
<tr>
<td>Reinforcement Carrier</td>
<td>None</td>
</tr>
<tr>
<td>Total Thickness, ASTM D374</td>
<td>0.127 to 0.254mm</td>
</tr>
<tr>
<td>Application</td>
<td>Thermal management, Thermally conductive adhesive</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>125 °C</td>
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</tbody>
</table>

FEATURES AND BENEFITS
- Thermal impedance: 0.05°C-in²/W @ 25 psi
- High Thermal Conductivity: 3.0 W/m-K
- Phase change softening temp 52°C
- Naturally tacky
- Tabulated for ease of assembly

TYPICAL APPLICATIONS
- Processor lid to heat sink
- FBDIMM to heat spreader
- Processor die to lid or heat sink

BERGQUIST HI FLOW THF 3000UT is a naturally tacky, thermally conductive phase change material which is supplied in an easy to use tabulated pad form. In the application the material undergoes a phase change softening, starting near 52°C.

The phase change softening feature improves handling characteristics prior to a facilitated assembly. At application temperatures and pressures, BERGQUIST HI FLOW THF 3000UT wets out the thermal interfaces producing a very low thermal impedance.

The thermal performance of BERGQUIST HI FLOW THF 3000UT is comparable to the best thermal greases. BERGQUIST HI FLOW THF 3000UT is provided at a consistent thickness to ensure reliable performance. BERGQUIST HI FLOW THF 3000UT can be applied in high volumes to the target surface via low pressure from a roller or manual application.

TYPICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical Properties</th>
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</thead>
<tbody>
<tr>
<td>Phase Change Temperature, ASTM D3418, °C</td>
</tr>
<tr>
<td>Flammability Rating, UL 94</td>
</tr>
</tbody>
</table>

Thermal Properties
- Thermal Conductivity, ASTM D5470, W/(m-K): 3.0
- Thermal Performance vs. Pressure
  - TO-220 Thermal Performance, °C/W:
    - @ 10 psi 0.37
    - @ 25 psi 0.35
    - @ 50 psi 0.34
    - @ 100 psi 0.3
    - @ 200 psi 0.26
  - Thermal Impedance, ASTM D5470, ºC-in²/W:
    - @ 10 psi 0.09
    - @ 25 psi 0.05
    - @ 50 psi 0.03
    - @ 100 psi 0.02
    - @ 200 psi 0.02

1) This is the measured thermal conductivity of the Hi-Flow coating. It represents one conducting layer in a three-layer laminate. The Hi-Flow coatings are phase change compounds. These layers will respond to heat and pressure induced stresses. The overall conductivitiy of the material in post-phase change, thin film products is highly dependent upon the heat and pressure applied. This characteristic is not accounted for in ASTM D5470. Please contact Bergquist Product Management if additional specifications are required.

2) The ASTM D5470 test fixture was used and the test sample was conditioned at 70°C prior to test. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

GENERAL INFORMATION
For safe handling information on this product, consult the Safety Data Sheet, (SDS).

Not for product specifications
The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

CONFIGURATIONS AVAILABLE
BERGQUIST HI FLOW THF 3000UT are supplied in:
- Tabulated in roll form, kiss-cut parts – no holes
- BERGQUIST HI FLOW THF 3000UT is limited to a square or rectangular part design. Dimensional tolerance is +/- 0.020 inch (0.5mm)
Conversions

\( ^\circ C \times 1.8 + 32 = ^\circ F \)

\( kV/mm \times 25.4 = V/mil \)

\( mm / 25.4 = \text{inches} \)

\( N \times 0.225 = \text{lb} \)

\( N/mm \times 5.71 = \text{lb/in} \)

\( psi \times 145 = \text{N/mm}^2 \)

\( \text{MPa} = \text{N/mm}^2 \)

\( N \cdot m \times 8.851 = \text{lb} \cdot \text{in} \)

\( N \cdot m \times 0.738 = \text{lb} \cdot \text{ft} \)

\( N \cdot mm \times 0.142 = \text{oz} \cdot \text{in} \)

\( \text{mPa} \cdot s = \text{cP} \)

Disclaimer

Note:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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